UNIVERSITÀ DEGLI STUDI DI TORINO

ID

VP51_DIP_PSI

Visiting Professor Program
Academic year 2021/2022

DEPARTMENT OF PSYCHOLOGY
TEACHING COMMITMENT: 18 hours

COURSE TITLE
Introduction to Computational Neuroscience

TEACHING PERIOD
2nd term

SCIENTIFIC AREA
psychobiology and physiological psychology

LANGUAGE USED TO TEACH
English

COURSE SUMMARY
What happens in our brain when we eat ice cream? How do we perceive a breath-taking sunset? Our brain is a complex and harmonious set of millions of neurons that constantly talk to each other, allowing us to hear, see, smell, think, and act. Given its complexity, several studies on how our nervous system works have inspired the development of mathematical models capable of delineating the general principles that govern physiology and cognitive functions. The goal of computational neuroscience is, therefore, to find mechanistic explanations, using advanced algorithms such as deep learning, on how the nervous system processes sensory stimuli to translate them into cognitive and behavioural activities.

LEARNING OBJECTIVES

The aim of the course is to provide students with a basic knowledge about methodologies applied in computational neuroscience, which allow them to orient themselves in the existing literature and to understand how these theoretical aspects may be exploited to study human behaviour.

TUTORSHIP ACTIVITIES

N/A

LAB ACTIVITIES

N/A

OTHER ACTIVITIES BESIDES THE COURSE

N/A

VISITING PROFESSOR PROFILE

The candidate must:
- be expert in computational neuroscience.
- have Ph.D. degree, preferable in Neuroscience and/or Computer Science and/or Biology or equivalent.
- have curriculum consistent with the teaching activities provided for both in terms of publications and academic career indicates in the CV.

CONTACT PERSON AT THE DEPARTMENT

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